

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (original) A method for screening a compound for an ability to induce apoptosis comprising:
 - (a) providing a first cell containing a normal or mutant p53 gene, wherein said first cell is capable of undergoing apoptosis after microinjection of a DNA construct expressing wild type p53;
 - (b) providing a second cell containing at least one of a mutant XPB gene and a mutant XPD gene, wherein said second cell is less capable than said first cell of undergoing apoptosis after microinjection of a DNA construct expressing wild type p53;
 - (c) contacting each of the first cell and the second cell with the compound;
 - (d) detecting whether or not apoptosis of the first cell occurs;
 - (e) detecting whether or not apoptosis of the second cell occurs; and
 - (f) comparing the detections of steps (d) and (e), thereby determining whether the compound can induce apoptosis.
2. (original) A method of claim 1 further comprising the step of selecting at least one of the first cell and the second cell from the group consisting of fibroblastic, epithelial, and hematopoietic cells.
3. (original) A method of screening for a compound capable of inhibiting the binding of p53 protein to at least one of XPB and XPD proteins comprising:
 - (a) providing a reagent having at least one of XPB and XPD;
 - (b) contacting the reagent with the compound, permitting the compound to compete with wild type p53 protein for a binding site on at least one of XPB and XPD proteins; and

(c) detecting a binding of the compound to at least one of XPB and XPD proteins.

4. (original) A method of claim 3 further comprising contacting the reagent with wild type p53 protein and detecting a binding of the wild type p53 to at least one of XPB and XPD proteins.

5. (original) A method of claim 3 further comprising attaching a label to at least one of the XPB, XPD, and p53 proteins.

6. (original) A method of claim 5 wherein the label is selected from the group consisting of an antibody, a radioisotope, and a fluorescent molecule.

7. (original) A method of claim 3 wherein the reagent has a TFIIH complex containing both XPB and XPD proteins.

8. (original) A method of screening for a compound capable of inhibiting at least one of XPB and XPD helicase activity comprising:

- (a) providing a reagent having at least one of XPB and XPD proteins;
- (b) contacting the reagent with the compound, permitting the compound to bind to at least one of XPB and XPD helicase; and
- (c) determining the helicase activity.

9. (original) A method of claim 8 wherein the reagent has a TFIIH complex containing both XPB and XPD proteins.

10-11. (canceled)

12. (original) A method of diagnosing *Xeroderma pigmentosum* complementation group B or D in an individual comprising:

- (a) providing a sample cell derived from the individual;
- (b) contacting the sample cell with the compound of claim 10; and

(c) detecting whether or not apoptosis of the sample cell occurs, thereby diagnosing whether or not the sample cell contains at least one of a mutant XPB gene and a mutant XPD gene.

13. (original) A compound consisting essentially of the amino acid sequence depicted in Seq. ID No. 4 wherein said compound (1) binds to a binding site on wild type p53 protein and (2) competitively inhibits the binding of wild type p53 protein to wild type XPB protein.

14. (original) A compound of claim 13 wherein the compound consists of the amino acid sequence depicted in Seq. ID No. 4.

15. (original) A method of diagnosing *Xeroderma pigmentosum* complementation group B or D in an individual comprising:

(a) providing a sample cell derived from the individual;
(b) contacting the sample cell with the compound of claim 13; and
(c) detecting whether or not apoptosis of the sample cell occurs, thereby diagnosing whether or not the sample cell contains at least one of a mutant XPB gene and a mutant XPD gene.